

Growth, flowering and gas exchange of *Ruellia brittoniana* treated with different concentrations and application frequencies of daminozide

ABSTRACT

Ruellia brittoniana is a fast growth plant with a strong tendency of vegetative growth that occurs at the expense of flowering capability, thus regular pruning for height control is necessary. Chemical pruning using suitable growth retardant may offer similar effects on stem and branch elongation, and flowering of the plants could be promoted. This study was carried out to evaluate the varying rate of daminozide and frequencies of application on the growth and flowering of *Ruellia brittoniana*. Results of a two factorial experiment involving two application frequencies (double and triple application) and five concentrations of daminozide (0, 500, 1000, 1500, 2000 mg L⁻¹) showed that different concentration of daminozide and application frequencies significantly affected the vegetative growth, photosynthesis, transpiration and chlorophyll content. Daminozide at 500 mg L⁻¹ with triple application caused a reduction of 42% in plant height compared to control with less detrimental effects on flower number. Daminozide application had not affected on the stomatal conductance. Application of daminozide at 500 mg L⁻¹ given in triple application was found to be effective in producing short, compact plants with more flowers.

Keyword : *Ruellia brittoniana*; Daminozide; Growth retardant